8. Petra

Program Name: Petra.java   **Input File: petra.dat**

Petra likes to look at things from all angles. When it comes to numbers, she likes to look at the relationship between a number and its reverse.

The reverse of 135 is 531.

The reverse of 980 is 089 which is actually 89.

The reverse of 5 is 5.

Your job is to find the greatest common factor of an input number and its reverse.

Input: Input will consist of an integer N, the number of test cases. The number of test cases will be in range [1,20]. Each subsequent line will contain one integer in the range [1,1000000] representing the number to be tested.

Output: Each line of output will consist of one integer representing the greatest common factor of the input with its reverse.

Sample input:
```
5
21
44
700
369
12345
```

Sample output:
```
3
44
7
9
3
```